

NAVY MEDICINE MAGAZINE

THE OFFICIAL SITE OF U.S. NAVY AND MARINE CORPS MEDICINE NEWS

NEWS FEATURES A LOOK BACK SCRUBBING IN I AM NAVY MEDICINE



NAVY MEDICINE IN FOCUS

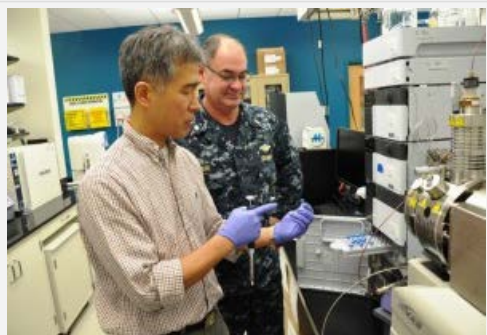
Researchers look for Organic Contaminants in Dental Wastewater

BY VJOHNSON – APRIL 10, 2014

POSTED IN: FEATURES

By Naval Medical Research Unit San Antonio

As part of an ongoing effort to improve environmental stewardship and compliance, the Naval Medical Research Unit San Antonio (NAMRU-SA) is studying the performance and efficiency of the Navy-patented chairside dental wastewater filtering system with a special focus on accumulation of organic chemical contaminants, including Bisphenol A (BPA).



Cmdr. David Leal (right), head of the Naval Medical Research Unit-San Antonio (NAMRU-SA) Biomaterial and Environmental Surveillance Team observes as Dr. Yoon Hwang demonstrates the features of LC/MS to detect BPA in dental wastewater. (Photo courtesy of NAMRU-SA)

BPA is a synthetic compound included in the manufacture of polycarbonate plastics and epoxy resins, and is found in many dental composites including resin cements and some dental pit and fissure sealants.

“The placement and removal of dental restorations may result in the release of BPA and other organic chemical contaminants into the wastewater stream where the environmental impact is uncertain,” said. Cmdr. David Leal, head of the Biomaterial and Environmental Surveillance team.

According to Leal and his team, there is limited research in the release of organic chemical contaminants generated by placement and removal of dental resin restorations into dental wastewater.

The efficiency of the Navy’s chairside dental wastewater polypropylene filter will be tested for



Recent Posts

- I AM NAVY MEDICINE
- ‘Unwavering Strength’ for a New Year, New You
- I AM NAVY MEDICINE
- Independent Duty Corpsman – A Specialized Lifesaver
- NAVY MEDICINE IN FOCUS

Recent Comments

- Jami Mesgar on ‘Unwavering Strength’ for a New Year, New You
- Chuck Bryan on I AM NAVY MEDICINE
- Richard G. Shuster on A brief history of the U.S. Navy Independent Duty Corpsman
- Anna Schwarz on I AM NAVY MEDICINE
- Shannon Dittlinger on I AM NAVY MEDICINE

Archives

- January 2015
- December 2014
- November 2014
- September 2014
- August 2014
- July 2014
- June 2014
- May 2014
- April 2014
- March 2014
- February 2014
- January 2014
- December 2013
- November 2013
- October 2013

Categories

- A LOOK BACK
- FEATURES
- I AM NAVY MEDICINE
- NAVY MEDICINE IN FOCUS

its ability to remove BPA and other organic contaminants.

“This filtration device already efficiently removes ninety-five percent of mercury,” said Leal.

Contaminant levels from filter extracts will be quantified using Liquid Chromatography/Mass Spectrometry, a highly sensitive, sophisticated analytical technique which combines the separation capabilities of liquid chromatography with mass spectrometry analysis capabilities.

“This research will further enhance the development of better engineered filtration models to alleviate potential organic environmental contaminants, putting NAMRU-SA at the forefront of global environmental conservation initiatives,” said Leal.

This project will enhance scientific capabilities and engineering practices conducted at NAMRU-SA, while fostering major contributions to the health and safety of our Sailors and Marines.



About vjohnson

- [NEWS](#)
- [SCRUBBING IN](#)

Meta

- [Log in](#)
- [Entries RSS](#)
- [Comments RSS](#)
- [WordPress.org](#)